

Name: _____

Date: _____

FOIL when $A \neq 1$ solution (version 5)

FOIL the expressions shown below:

1. $(4x - 8)(8x + 2)$

$$\begin{aligned} &(4)(8)x^2 + (4)(2)x + (-8)(8)x + (-8)(2) \\ &(32)x^2 + (8)x + (-64)x + (-16) \\ &32x^2 - 56x - 16 \end{aligned}$$

2. $(-3x - 3)(7x - 7)$

$$\begin{aligned} &(-3)(7)x^2 + (-3)(-7)x + (-3)(7)x + (-3)(-7) \\ &(-21)x^2 + (21)x + (-21)x + (21) \\ &-21x^2 + 21 \end{aligned}$$

3. $(-5x + 5)(9x + 3)$

$$\begin{aligned} &(-5)(9)x^2 + (-5)(3)x + (5)(9)x + (5)(3) \\ &(-45)x^2 + (-15)x + (45)x + (15) \\ &-45x^2 + 30x + 15 \end{aligned}$$

4. $(3x + 5)(-5x + 4)$

$$\begin{aligned} &(3)(-5)x^2 + (3)(4)x + (5)(-5)x + (5)(4) \\ &(-15)x^2 + (12)x + (-25)x + (20) \\ &-15x^2 - 13x + 20 \end{aligned}$$

5. $(-4x + 3)(5x - 2)$

$$\begin{aligned} &(-4)(5)x^2 + (-4)(-2)x + (3)(5)x + (3)(-2) \\ &(-20)x^2 + (8)x + (15)x + (-6) \\ &-20x^2 + 23x - 6 \end{aligned}$$

FOIL the expressions shown below:

6. $(9x - 8)(-4x + 7)$

$$\begin{aligned}(9)(-4)x^2 + (9)(7)x + (-8)(-4)x + (-8)(7) \\ (-36)x^2 + (63)x + (32)x + (-56) \\ -36x^2 + 95x - 56\end{aligned}$$

7. $(9x - 6)(-2x - 2)$

$$\begin{aligned}(9)(-2)x^2 + (9)(-2)x + (-6)(-2)x + (-6)(-2) \\ (-18)x^2 + (-18)x + (12)x + (12) \\ -18x^2 - 6x + 12\end{aligned}$$

8. $(5x + 4)(6x + 8)$

$$\begin{aligned}(5)(6)x^2 + (5)(8)x + (4)(6)x + (4)(8) \\ (30)x^2 + (40)x + (24)x + (32) \\ 30x^2 + 64x + 32\end{aligned}$$

9. $(9x - 8)(-7x - 2)$

$$\begin{aligned}(9)(-7)x^2 + (9)(-2)x + (-8)(-7)x + (-8)(-2) \\ (-63)x^2 + (-18)x + (56)x + (16) \\ -63x^2 + 38x + 16\end{aligned}$$

10. $(6x + 3)(7x + 5)$

$$\begin{aligned}(6)(7)x^2 + (6)(5)x + (3)(7)x + (3)(5) \\ (42)x^2 + (30)x + (21)x + (15) \\ 42x^2 + 51x + 15\end{aligned}$$